NH

December 14, 1992

James Linnane
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Dear Jim:

Enclosed is New Hampshire's annual pest information for 1992. This year, the most significant effect on the forest was Gypsy Moth, however, this population trend is down.

The enclosed maps list the number of areas of defoliation marked on each quadrangle. We hope this helps to make sure the very small areas are not missed.

Sincerely,

for Alfred C. Avery
Forest Entomologist

NEW HAMPSHIRE
1992 Summary of Current Health

The year 1992 was basically "healthy" for New Hampshire's forests. There were no increases in current insect activity and no new significant concerns.

The forest type which experienced the most activity in 1992 was the oak/hickory type. Gypsy Moth contributed 182,575 acres of moderate and heavy defoliation, most of which was in the moderate (31-60%) category. In areas that have had consecutive years of heavy defoliation, some understory white pine has died and much is stressed. The Gypsy Moth population trend is down.

Oak Leaf Tier populations were not significant in 1992.

The oak/pine type also received some defoliation by Gypsy Moth in 1992. Once again this population trend is down.

Northern hardwoods in New Hampshire sampled by NAMP were rated in good condition. Beech Bark Disease continues to be present on american beech.

In Orange, near Cardigan Mt. and in Conway, along Hurricane Mt. road, approximately 200 acres in total of northern hardwood type experienced defoliation, discoloration and some tree mortality. This damage was noticed in late July to early August. The actual cause of this damage was not determined, however some hypotheses were related to weather or pollution, specifically SO2 or HF.

In Stark, Warren and Franconia Notch hardwoods on approximately 1000 acres in total were affected by a late spring frost.

In the white/red/jack pine forest type the hemlock component had few stressors. There was no defoliation by Hemlock Looper in 1992, but some of the hemlocks defoliated in 1990 and 1991 still have bare tops, dead tops or thin foliage. This population trend appears to be down.

Hemlocks in New Hampshire appear to be free of Hemlock Woolly Adelgid at this time.

There was some defoliation by Gypsy Moth, especially in heavily defoliated areas in Strafford, Rockingham and Merrimack Counties.

In 1992 there was an ozone event on 40 acres of white pine in Thornton.

Scattered White Pine Blister Rust infections continue to be present in this type.

The spruce/fir type was also basically healthy in 1992. There was an isolated incidence of Balsam Bark Weevil, Pissodes dubius Randall, causing mortality on balsam fir in Dummer. This was the first reported incidence of this in New Hampshire following the last outbreak of Spruce Budworm. The Balsam Bark Weevil is noted for being a secondary pest after Spruce Budworm defoliates. This insect activity will be further investigated by

New Hampshire.

Spruce Budworm traps showed no sign of significant population present. In 1992, NH had the first moth catch in 8 years; 4 moths were caught. This population trend is slightly up.

The aspen/birch received some defoliation by Gypsy Moth. Fall Webworm was also active in this type.

Overall forest stressor levels seem to be down in New Hampshire.

NH

FOREST HEALTH WORKSHEET

AFFECTED FOREST TYPES*/OTHER**	ACRES/AREA AFFECTED	SEVERITY/PATTERN (Define classes)
Oak/Hickory	122 325 acres	(31-60) moderate & (61+) heavy - most was heavy @ 50% of this
White/Red/Jack Pine	25,561 ac.	(31-60) mod. & (61+) heavy - most of this type was mod. defo.
Oak/Pine	25,561 ac.	(31-60) mod. & (61+) heavy - most was mod defol.
*Aspen/Birch	9,128 ac	(31-60) mod. & (61+) heavy - mostly mod.

*Forest Type Group - White-Red-Jack Pine, Spruce-Fir, Hard Pine, Oak-Pine, Oak Hickory, Oak-Gum-Cypress, Elm-Ash-Cottonwood, Northern Hardwood, Aspen-Birch.

**Other - Urban-Ornamental, Nursery, Plantation.

DAMAGE

DAMAGE CAUSING AGENT: Gypsy Moth

SCIENTIFIC NAME: Lymantria dispar Linnaeus

SPECIFIC TREE SPECIES AFFECTED: Northern Red Oak, White Oak, Eastern White Pine, Eastern Hemlock, Red Maple, American Beech, Aspen (Quaking & Bigtooth), Paper Birch, Willow

AGE OF AFFECTED TREES (understory, pole, mature, regeneration)

Mature, Pole & Understory

In heavily defol areas, especially hard hit understory was: oak, beech, white pine & some hemlo

SURVEY METHOD: Aerial Survey, ground check

TREATMENT (if any): None

TREND (Past and future): Acres defoliated & egg mass/acre had increased each year from 1986 to 1991. In 1992 the defol acres & egg mass/acre decreased. Based on 1992 field surveys of egg mass/acre, size, & incidence of fungus or virus, the trend is expected to continue downward.

LOCATION **MAP ENCLOSED** X **TAPE ENCLOSED** _____

STATEWIDE _____ **OR:**

COUNTY	TOWNSHIP
Belknap	
Carroll	
Hillsborough	
Merrimack	
Rockingham	
Strafford	

(If needed, continue on reverse side)

COMMENTS